Applicant: Shinji Maekawa Attorney's Docket No.: 07977-258001 / US4448

Serial No.: 09/724,403

Filed: November 27, 2000

Page : 2 of 4

For at least these reasons, applicants request reconsideration and withdrawal of the rejection of claim 1 and its dependent claims 2 and 67.

Claim 7 recites a method of manufacturing a semiconductor device including the steps of forming a semiconductor film over a substrate and "forming a material in contact with the semiconductor film by LPCVD within a temperature range of between 500 and 900°C, whereby an impurity element in the semiconductor film is gettered into the material" (emphasis added). For at least the same reasons described above with respect to claim 1, applicants request reconsideration and withdrawal of the rejection of claim 7 and its dependent claim 68 because Yamazaki '044 does not describe or suggest forming the recited material that receives, through a gettering process, an impurity element from a semiconductor film in contact with the material.

Claims 62 and 69-71, depend from independent claims 8, 9, and 61. The Examiner did not reject independent claims 8, 9, and 61 as being anticipated by Yamazaki '044. Accordingly, since claims 62 and 69-71 incorporate all of the limitations of their parent claims, applicants submit that the anticipation rejection of claims 62 and 69-71 based on Yamazaki '044 is in error since the Examiner himself admits to the deficiency of Yamazaki '044 as an anticipatory reference for independent claims 8, 9, and 61. For at least this reason, applicants request reconsideration and withdrawal of the rejection of claims 62 and 69-71.

Claims 3, 4, and 20, which depend from independent claim 1, have been rejected as being unpatentable over Yamazaki '044 in view of Yonehara (U.S. Patent No. 5,670,411). Yonehara describes a process for making a semiconductor-on-insulator substrate which includes an LPCVD step that uses a chlorine gas. Yonehara, however, does not remedy the failure of Yamazaki '044 to describe or suggest forming the recited material that receives, through a gettering process, an impurity element from a semiconductor film in contact with the material. Accordingly, applicants request reconsideration and withdrawal of the rejection of claims 3, 4, and 20.

Independent claims 8 and 9, and dependent claims 60 and 63-66, have been rejected as being unpatentable over Yamazaki '044 in view of Yonehara.

Applicant: Shinji Maekawa Attorney's Docket No.: 07977-258001 / US4448

Serial No.: 09/724,403

Filed: November 27, 2000

Page : 3 of 4

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Claim 8 recites a method of manufacturing a semiconductor device including the steps of forming a semiconductor film over a substrate and "forming a material in contact with the semiconductor film by LPCVD within a pressure range of between 0.1 and 3 Torr, whereby an impurity element in the semiconductor film is gettered into the material." (emphasis added). Claim 9 recites a method of manufacturing a semiconductor device including the steps of forming a semiconductor film over a substrate and "forming a material in contact with the semiconductor film by LPCVD with a gas containing chlorine as a material gas, whereby an impurity element in the semiconductor film is gettered into the material." (emphasis added). For at least the same reasons as those described above in reference to claims 3, 4, and 20, applicants request reconsideration and withdrawal of the rejection of claims 8 and 9, and their dependent claim 60, because neither Yamazaki '044, Yonehara, nor any combination of the two describes or suggests forming the recited material that receives, through a gettering process, an impurity element from a semiconductor film in contact with the material.

Claims 63-66 depend from independent claim 61. Independent claim 61 recites a method of manufacturing a semiconductor device that includes forming a semiconductor film over a substrate and "forming a material having a tensile stress of 8 x 10⁹ dynes/cm² or more in contact with the semiconductor film, whereby an impurity element in the semiconductor film is gettered into the material" (emphasis added). Accordingly, since claims 63-66 incorporate all of the limitations of claim 61, applicants request reconsideration and withdrawal of the rejection of claims 63-66 for at least the same reasons described above with respect to claims 3, 4, and 20. In particular, neither Yamazaki '044, Yonehara, nor any combination of the two describes or suggests forming the recited material that receives, through a gettering process, an impurity element from a semiconductor film in contact with the material.

Independent claim 61 has been rejected as being unpatentable over Yamazaki '044 in view of Yamazaki '390 (U.S. Patent No. 6,444,390).

Yamazaki '390 describes a process for producing a semiconductor thin film device using group 14 elements and a high temperature oxidizing treatment to crystallize a silicon film.

Yamazaki '390 does not cure the deficiency of Yamazaki '044 to describe or suggest the

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Serial No.: 09/724,403

Filed: November 27, 2000

Page : 4 of 4

material recited in claim 61 that receives, through a gettering process, an impurity element from a semiconductor film in contact with the material.

Yamazaki '390 describes forming a germanium film 103, which the Examiner equates to the recited material, on an amorphous silicon film 102 that is then crystallized to form a polysilicon film 104/501, which the Examiner equates to the recited semiconductor film. See Figs. 1A-B, col. 3, line 58 to col. 4, line 21. Yamazaki '390, however, does not describe or suggest that impurity elements in the polysilicon film 104/501 are gettered into the germanium film 103. Rather, the germanium film 103 is simply removed from the polysilicon film 104/501 after the crystallization step is completed. See Fig. 1C, col. 4, lines 22-25.

For at least this reason, applicants request reconsideration and withdrawal of the rejection of claim 61.

Applicants submit that all claims are in condition for allowance.

Enclosed is a \$120 check for the Petition for Extension of Time fee. Please apply any other charges or credits to deposit account 06-1050.

Date: 9/17/03

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Respectfully submitted

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